

REMARKS

As a preliminary matter, Applicant respectfully submits that the currently-pending Office Action was improperly made final under MPEP 706.07(a). The Examiner introduces a new ground of rejection that is neither necessitated by Applicant's amendment of the claims nor based on information submitted in an Information Disclosure Statement.

Particularly, the Examiner rejects claims 1 and 26 under 35 U.S.C. § 112, second paragraph, as being indefinite. In support, the Examiner alleges (Office Action, pages 2-3) that it is unclear "how the Y are connecting the three cell, since the cell are hexagonal with an infinite of points at the outer peripheral and applicant fail to recite clearly how the cells are interconnected" (sic). However, claims 1 and 26, prior to Applicant's amendments of these claims in previously-submitted Amendment A, already recited at least hexagonal cells and Y's connecting the cells in clusters of three cells each, wherein the cells are interconnected. Thus, the Examiner's concern as to how Y's are connecting three cells "since the cells are hexagonal" could have been raised with regard to the claims as previously presented, and was not necessitated by Applicant's amendment.

Further, the rejection of claims 1 and 26 states, "It is also unclear what is 'Y' stand for" (sic). However, claims 1 and 26 also recited Y's before Applicant's amendment. Thus, this additional basis for rejection was not necessitated by Applicant's amendment.

Both of these bases for rejection were introduced by the Examiner as a new ground for rejection in the current Office Action but were not necessitated by Applicant's amendment. Thus, based on either of these new rejections, the current Office Action was

improperly made final. Applicant respectfully requests withdrawal of the finality of the current Office Action.

Regarding the substance of the rejections, independent claims 1 and 26, along with dependent claims 2-8, 19, 24-25, 30, and 27-29, stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicant respectfully traverses the rejection. The meaning of the claim 1 phrase “a plurality of Y’s, each of the Y’s respectively connecting the cells in clusters of three cells each, wherein the cells within the clusters are interconnected” would be clearly understood by one of ordinary skill in the art having reference to the present specification.

Particularly, the Examiner questions (page 3, top) how the Y’s are connecting the hexagonal three cells. Page 1, lines 15-22 of the present specification make clear that processors, elements, or devices can be arranged in arrays of cells, where each of the cells contain a component of one or more overall circuits and one or more terminals to communicate with other cells. The interconnection defined in claim 1, as would be understood by one of ordinary skill in the art, is directed to interconnection among these cells, e.g., interconnection among circuit components in respective cells within an array. Previous interconnection methods include Manhattan architecture and X-architecture. These previous interconnection methods are well known to those of ordinary skill in the art as methods to interconnect arrays of cells, regardless of the “infinite number of points including points at the outer peripheral” that would also exist in an array of rectangular cells (for example, see the cells in FIGs. 19A-19C).

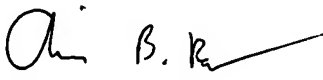
The claimed connection method also interconnects cells in an array, though the cells are hexagonal. As provided at page 11, lines 12-21 of the specification, Y's may be used to connect clusters of cells according to an interconnection architecture. The Examiner's concern as to how the cells are interconnected is directly addressed by the claim, in that interconnects include Y's that respectively connect the cells in clusters of three cells each, interconnecting the cells within the cluster.

Further, though the Office Action states that it is unclear what a "Y" is, page 11, lines 14-16 of the specification define an individual Y connecting a cluster of cells as including interconnects (legs) extending in three separate directions from a common node. Examples of such Y's are shown in FIGs. 1 and 2A-2B, among others. A "Y-architecture" may be considered more broadly to include a routing architecture including three routing directions (page 13, lines 21-22). However, the claim definition of a Y as connecting the cells in clusters of three cells each, along with the specification's definition of an individual "Y" used in such an interconnection and the associated drawings showing several such Y's, allow one of ordinary skill in the art having reference to the claims and specification (including drawings) to clearly appreciate what is referred to as a "Y" in the claims: interconnects extending in three separate directions from a common node.

For at least these reasons, Applicant respectfully submits that claim 1 and dependent claims 2-8, 19, 24-25, and 30 are definite, and allowable. The rejection of independent claim 26 and dependent claims 27-29 on similar grounds is respectfully submitted to be allowable for similar reasons as for claim 1.

For at least the foregoing reasons, Applicant believes that this case is in condition for allowance, which is respectfully requested. The Examiner should call Applicant's attorney if an interview would expedite prosecution.

Respectfully submitted,
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